system, if the additional use of the system does not interfere with the smelter owner's ability to meet the requirements of subpart D; and

- (b) Engineering and maintenance techniques. The use of engineering and maintenance techniques to detect and prevent leaks and capture and vent fugitive emissions through appropriate stacks. These techniques include but are not limited to:
- (1) For reactors, installation and proper operation of primary hoods;
- (2) For roasters, installation and proper operation of primary hoods on all hot calcine transfer points;
- (3) For furnaces, installation and proper operation of primary hoods on all active matte tap holes, matte launders, slag skim bays, and transfer points;
- (4) For converters, installation and proper operation of primary hoods for blowing operations, and where appropriate, secondary hoods for charging and pouring operations;
- (5) For sintering machines, installation and proper operation of primary hoods on the sinter bed, all hot sinter ignition points, all concentrate laydown points, and all hot sinter transfer points;
- (6) For blast furnaces, installation and proper operation of primary hoods on all active slag and lead bullion furnace tap holes and transfer points;
- (7) For dross reverberatory furnaces, installation and proper operation of primary hoods on all active charging and discharging points;
- (8) Maintenance of all ducts, flues and stacks in a leak-free condition to the maximum extent possible;
- (9) Maintenance of all process equipment under normal operating conditions in such a fashion that out-leakage of fugitive gases will be prevented to the maximum extent possible;
- (10) Secondary or tertiary hooding on process equipment where necessary; and
- (11) Partial or complete building evacuation as appropriate.

§ 57.504 Continuing evaluation of fugitive emission control measures.

Each NSO shall require the smelter owner to conduct an active program to continuously review the effectiveness of the fugitive emission control measures implemented pursuant to §57.503 in maintaining the NAAQS and, if such measures are not sufficiently effective, to evaluate what additional measures should be taken to assure that the NAAQS will be maintained with a reasonably degree of reliability. The NSO shall also require submission of a semi-annual report to the issuing Agency detailing the results of this review and evaluation. Such a report may be submitted as part of the report required under §57.402(f).

§ 57.505 Amendments of the NSO.

An NSO shall be amended within three months of submission of any report required under §57.504 so as to require additional fugitive emission control measures if such report establishes that such additional measures are necessary to assure that the NAAQS will be maintained with a reasonable degree of reliability.

Subpart F—Research and Development Requirements

§ 57.601 General requirements.

- (a) This subpart is not applicable to NSOs which contain a SIP compliance schedule in accordance with §57.705.
- (b) The requirements of this subpart may be waived with respect to a smelter if the owner of that smelter submits with its NSO application a written certification by a corporate official authorized to make such a certification that the smelter will either comply with its SO_2 SIP limits by January 2, 1988 or close after January 1, 1988 until it can comply with such limits.
- (c) Except as provided in paragraphs (a) and (b), each NSO shall require the smelter to conduct or participate in a specific research and development program designed to develop more effective means of compliance with the sulfur dioxide control requirements of the applicable State Implementation Plan than presently exist.

§ 57.602 Approval of proposal.

(a) The smelter owner's proposal. The smelter owner's NSO application shall include a proposed NSO provision for implementing the requirement of §57.601, a fully documented supporting

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analysis of the proposed program, and an evaluation of the consistency of the proposed program with the criteria listed in §57.603. The application shall also specify:

(1) The design and substantive elements of the research and development program, including the expected amount of time required for their implementation;

(2) The annual expected capital, operating, and other costs of each element

in the program;
(3) The smelter

- (3) The smelter's current production processes, pollution control equipment, and emissions which are likely to be affected by the program;
- (4) Potential or expected benefits of the program;
- (5) The basis upon which the results of the program will be evaluated; and

(6) The names, positions, and qualifications of the individuals responsible for conducting and supervising the

project.

- (b) EPA approval. (1) If the issuing agency will not be EPA, the smelter owner or the issuing agency may also submit to EPA the information specified in paragraph (a) of this section at the same time the information is submitted to the issuing agency. As soon as possible after the receipt of the information described in paragraph (a) of this section, EPA shall certify to the issuing agency and to the applicant whether or not in the judgment of the Administrator the smelter owner's final proposals are approvable. If EPA does not receive an advance copy of the proposal, the ultimate approval will occur when the NSO is approved rather than in advance of receipt of the NSO.
- (2) A prerequisite for approval of an R&D proposal by EPA and any issuing agency is that the planned work must yield the most cost effective technology possible.
- (c) Optional preproposal. The smelter owner may, at its option, submit to EPA for its approval and comment a preproposal generally describing the project the owner intends to propose under paragraph (a) of this section. A preproposal may be submitted to EPA any time prior to the submission of a proposal under paragraph (a) of this section. As soon as possible after the receipt of a preproposal, EPA shall cer-

tify to the applicant (and to any other issuing agency, as applicable) whether or not the project would be approvable. This certification may include comments indicating necessary modifications which would make the project approvable.

§ 57.603 Criteria for approval.

The approvability of any proposed research and development program shall be judged primarily according to the following criteria:

- (a) The likelihood that the project will result in the use of more effective means of emission limitation by the smelter within a reasonable period of time and that the technology can be implemented at the smelter in question, should the smelter be placed on a SIP compliance schedule at some future date when adequately demonstrated technology is reasonably available;
- (b) Whether the proposed funding and staffing of the project appear adequate for its successful completion;
- (c) Whether the proposed level of funding for the project is consistent with the research and development expenditure levels for pollution control found in other industries;
- (d) The potential that the project may yield industrywide pollution control benefits;
- (e) Whether the project may also improve control of other pollutants of both occupational and environmental significance;
- (f) The potential effects of the project on energy conservation; and
- (g) Other non-air quality health and environmental considerations.

§ 57.604 Evaluation of projects.

The research and development proposal shall include a provision for the employment of a qualified independent engineering firm to prepare written reports at least annually which evaluate each completed significant stage of the research and development program, including all relevant information and data generated by the program. All reports required by this paragraph shall be submitted to EPA and also to the issuing agency if it is not EPA.